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EDWARD JENNER
(1749-1823)

By SIR BUCKSTON BROWNE, LL.D., F.R.C.S.

A Trustee of the Hunterian Collection;
Honorary Gold Medalist of the Royal College of Surgeons of England;
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IT is well-nigh impossible for those living in all the security of the twentieth century, obtained for us by the genius of two Englishmen, Jenner and Lister, fully to realise the horrors of that foul and cruel disease, Smallpox. It was never more rife in England than in the eighteenth century; it yearly killed its thousands, and those who recovered were usually disfigured facially for life, and frequently blinded. George Canning (1770–1827), in one of his speeches, said: "everyone must sooner or later expect to have the smallpox." The disease attacked the high and the low; it appeared in the palace and the hovel.

In 1774, Louis XV of France, at thirty-four, died of smallpox; many previous occupants of the French throne had died of the disease. The pathetic disfigurement of beautiful women by smallpox is dwelt upon by Thackeray in "Esmond," and by Dickens in "Bleak House." While in the "Heart of Midlothian," published in 1818, describing a scene happening in 1736, Sir Walter Scott makes special reference to Edward Jenner in eloquent terms. Jeanie Deans has walked to London from Scotland to plead for the life of her sister Effie. The Duke of Argyle drives her to Richmond, and

introduces her to Queen Caroline (1683–1737), wife of George II. Scott writes that the Queen's features were good, but disfigured by the smallpox, "that venomous scourge which each village Esculapius (thanks to Jenner) can now tame as easily as their tutelary deity subdued her Python." To-day a medical man may pass a long lifetime, and never meet with a case of smallpox, and this is entirely due to the curiosity, thought, experiment and patient determination of a modest, unassuming country doctor, Edward Jenner, with nothing to assist him save his simple surgery and the farmsteads around him.

His portrait, painted in middle life—in 1803—by that distinguished artist, James Northcote (1746–1831), hangs in Room 30 in our National Portrait Gallery. Here we see him clean shaven, wearing his own white hair, with clear blue eyes looking at the spectator, seated at a table, his head resting on his left hand, his well-formed right hand holding a quill pen carelessly hanging by his side. On the table are shown an inkstand, an anatomical specimen in a bottle, a hoof, and the epoch-making book: "An Inquiry into the Cause and Effects of Variolæ Vaccinæ, a Disease discovered in some of the Western Counties of England, particularly Glostershire, and known by the name of Cow-pox." The book is a quarto of seventy-five pages, and twenty-three cases are described showing "The cowpox protects the human constitution from the infection of smallpox." It is illustrated, one coloured plate showing the cowpoxed hand of the milkmaid, Sarah Nelmes, from which the first successful case of vaccination was derived. In Northcote's painting the book lies open, showing a picture of a cow encircled by a snake, the tail of the snake being in the cow's mouth.

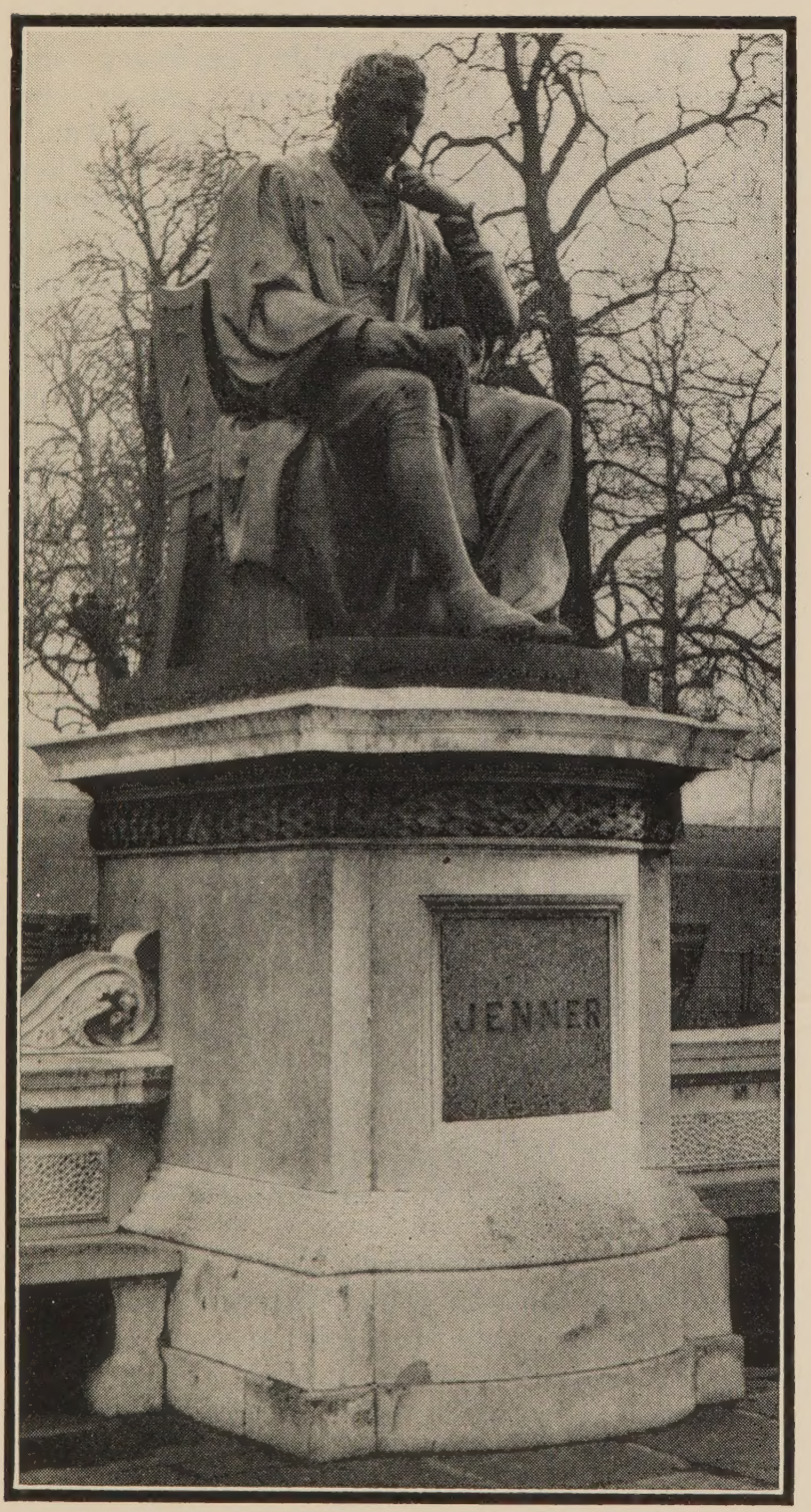
EDWARD JENNER

Portrait by James Northcote, in the National Portrait Gallery

In London, Jenner is also represented by a statue in bronze by W. Calder Marshall, R.A., 1838. It was erected in Trafalgar Square in 1858, but in 1862 (Heaven only knows why !) was removed to the seclusion of Kensington Gardens, on the eastern side of the upper end of the Serpentine. Here, as in the portrait, Jenner is seated. He wears a gown, knee-breeches and buckled shoes. The head rests on the left hand, the right hand holds a scroll and rests on the right knee. On each side of the chair appear the staff of Æsculapius and the fore part of a cow's head.

At home, in the country, Jenner appeared as a clean-shaven, good-looking man of medium height, wearing a broad-brimmed hat, his white hair gathered into what was then called "a club." He wore a blue coat with gilt buttons, buckskin breeches, well-polished jockey boots with handsome silver spurs, and he carried a silver-banded riding whip. He generally rode a white horse, and altogether made an attractive, smart and cheery figure.

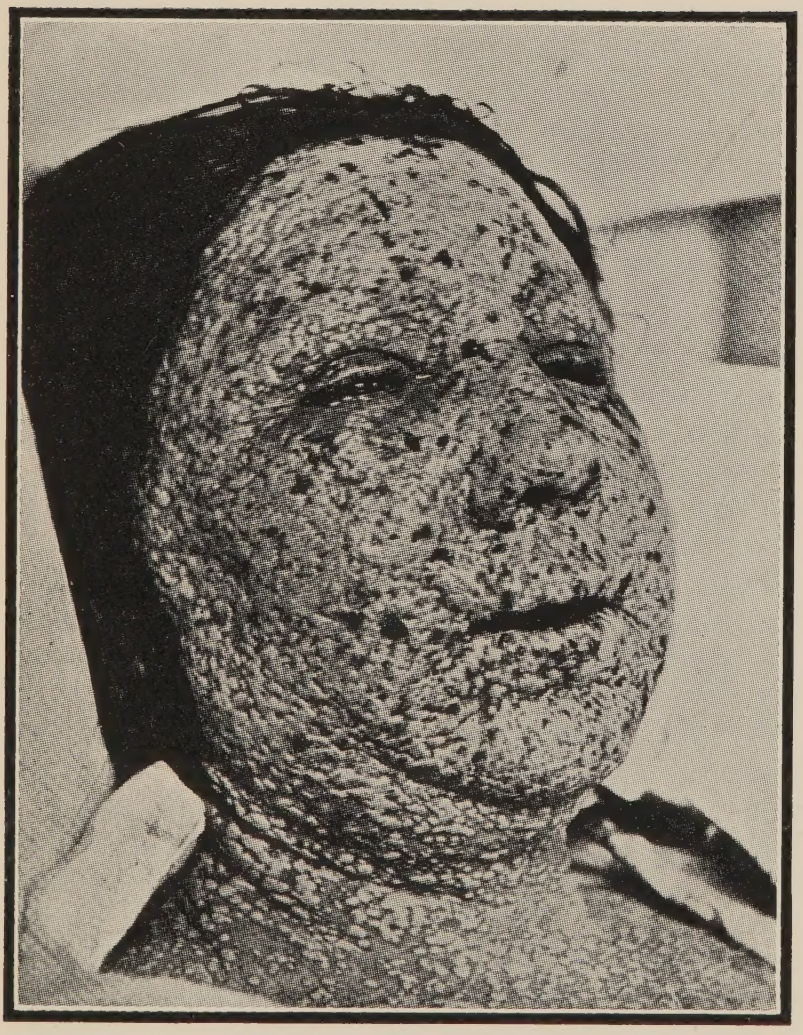
Edward Jenner was born on May 17th, 1749, in the Gloucestershire village of Berkeley. He came of sound English clerical stock. He went to the Grammar School in Cirencester, and when about sixteen was apprenticed to Mr. Ludlow, a surgeon at Sodbury, near Bristol. The boy was devoted to natural history from his childhood, particularly to geology and ornithology, and specially studied the strange habits of the cuckoo and the marvellous transmigration of birds. He loved his flute and his violin. He was not averse to good society and moderate conviviality. His friends thought that had he cared, he might have become a distinguished poet, for he wrote good verse and songs, and often sang the latter. His main characteristic, however, and the secret of the magnificent achievement of



Bronze statue by W. Calder Marshall, R.A., in Kensington Gardens.

his life, was his insatiable curiosity—his inquisitiveness ; for, like Queen Esther, he must know "what it was and why it was." Curiosity is a supreme quality, and, together with Hunger and Love, has probably led, as nothing else has done, to Man's progress on this planet. Jane Austen, with a woman's instinct, wishing to pour scorn upon the head of one of her characters—Mr Price, Fanny's father—says "he had no curiosity." It was doubtless this curiosity, a determination to know all there was to know about his profession, which, when he was twenty-one and at the end of his apprenticeship, brought Jenner to London, where he lived for two years as a house pupil of that great surgeon and pioneer, John Hunter (1728–1793). In John Hunter he met a man of equal curiosity, his senior by twenty-one years, and a man after his own heart. A life-long friendship ensued, and correspondence never ceased. For years Hunter obtained from Jenner biological specimens of all kinds, such as birds' nests, cuckoos, hedgehogs, eels and salmon spawn—a complete list would be a long one. Hunter was so much attached that he wished Jenner to settle down with him in London, but Jenner preferred the country. It was to Jenner that Hunter gave that immortal advice with regard to biological investigation : "Don't think, but try ; be patient, be accurate." Unhappily, when in 1798 Jenner came to London with his great discovery of vaccination, the "dear man" —as Jenner always called Hunter—was dead, and could not enjoy his pupil's success, and give him the support he sadly needed at first.

During Edward Jenner's apprenticeship at Sodbury, between his sixteenth and twentieth years, something great happened in the commonplace little surgery : something which was to benefit the whole world and to immortalise the

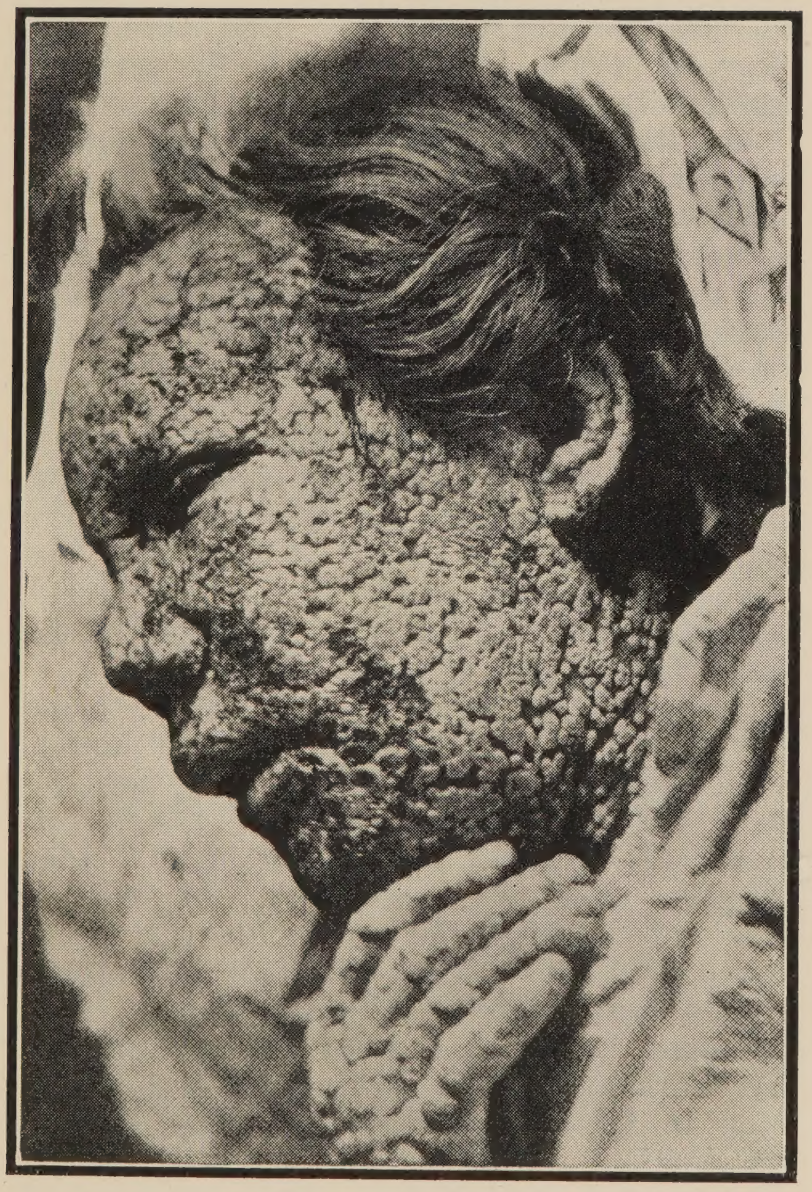


Photographs of smallpox patients.

(By permission of Mr. J. B. Byles, F.R.C.S., and Messrs. Cassell & Co.)

boy. Opportunity stepped in, that mysterious something which, forelock in front and bald behind, visits most men sooner or later, but is so seldom seen, so seldom realised, until too late. "For what is opportunity," as George Eliot finely says. "To the man who cannot use it, it is like an unfecundated egg, which the waves of time wash away into nonentity." But Edward Jenner realised his opportunity, seized it by the forelock, and never loosened his hold for twenty-five years. Opportunity came into the little room in the shape of a dairy maid. Conversation turned upon smallpox, and the girl said: "Oh, I shall never have smallpox, for I've had cowpox." This remark set Jenner thinking. On making inquiry, he found that the girl's opinion was universally held in all the dairy farms round about; but the idea was laughed to scorn by all the local medical men, for they frequently came across smallpox in cases said previously to have had cowpox. Jenner, however, was greatly impressed, and determined to prove the girl's statement to be true or false by patient observation and experiment. All was not so simple as it may have looked at first sight. Jenner soon found that there were many affections of the cow's teats and udder communicable to the milker's hand; that many cases of so-called cowpox were spurious, that cowpox was comparatively rare, and that it was these facts that had led his local medical brothers to give no credence to the popular belief. It will easily be understood how difficult was the problem which Jenner had set himself to prove, one way or the other.

The farms were wide apart, locomotion was on horseback, and his practice as a country doctor time consuming. The question, however, never left his mind. He became so obsessed that he could often talk of nothing



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else, and he was threatened—let us trust only as a joke—with expulsion from one of the two rustic medical clubs to which he belonged, as an insupportable bore. The next twenty-five years of his life were devoted to the problem, and finally were crowned with complete success.

On May 14th, 1796, he successfully inoculated a healthy boy of eight, John Phipps, with cowpox from the hand of a milkmaid —Sarah Nelmes—and some eight weeks after inoculated the boy with true smallpox, without any resulting disease! Jenner continued his observations, and soon felt that he was on the right road to great achievement. For some months he went about his daily work oppressed by the knowledge that he, and he alone, possessed the secret for the prevention of smallpox, and the saving of thousands and thousands of lives yearly all over the world, and the freeing of mankind from one of the most horrible and torturing of diseases.

At last, when quite sure of his facts, and having written his little book, he armed himself with a good supply of lymph, and, with his wife and daughter, started for London on April 24th, 1798. His "dear man" John Hunter, unhappily, was dead. At first, as was only natural, he met with very great opposition. It is right that all innovations should be severely criticised before being accepted, but truth is great and will prevail. The world longed for a preventative of smallpox. Men in London gradually accepted Jenner's vaccination, and it was soon accepted all over Europe and in America. But patients and practice did not come to Jenner. Vaccination, when once explained, was such a simple thing that any medical man could practise it. He took a fine house in Hertford Street—No. 10—still standing, and spent something like £6,000 of his own money, and all to no advantage.

Parliament voted him £10,000, which he received, sadly shorn by fees and commission, and very long after it was due, and later on another £20,000. His wife was ill and dying, and they returned to Berkeley. He resumed practice, and no doubt enjoyed his great fame and reputation ; but no titles, no more money came his way, and he worked on quietly to the very end, dying of apoplexy in his seventy-second year. He is buried in his father's church at Berkeley.

So passed the supreme, or shall we say one of the supreme, benefactors of the human race. One remarkable for his simplicity and directness of purpose, the Conqueror of the " venomous scourge " Smallpox, and the Father of modern preventive medicine.

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